# DRAFT PHASE II

# ENVIRONMENTAL SITE ASSESSMENT

# **FURON COMPANY**

LIBERTY STREET MANUFACTURING FACILITY HOOSICK FALLS, NEW YORK 12090



PREPARED FOR



MAY 1996

PREPARED BY

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### List of Acronyms

ASTM - American Society for Testing and Materials
BTEX - Benzene, toluene, ethylbenzene, xylene (total)

CLP - Contact Laboratory Protocol
ESA - Environmental Site Assessment

I.D. - Inside Diameter

MCL - Maximum Contaminant Level
Mg/Kg - Milligrams per Kilogram
Mg/L - Milligrams per Liter

NTU - Nephelometric Turbidity Unit

NYSDEC - New York State Department of Environmental Conservation

OVM - Organic Vapor Meter
PCB - Polychlorinated Biphenyls

POTW - Publicly Owned Treatment Works
PSAT - Pressure Sensitive Adhesive Tape

PTFE - Polytetrafluoroethylene

QA/QC - Quality Assurance/Quality Control
SVOC - Semivolatile Organic Compound

TAGM - Technical and Administration Guidance Memorandum

TAL - Target Analyte List
TCE - Trichloroethene

TCL - Target Compound List

TPH - Total Petroleum Hydrocarbons ug/kg - Micrograms per Kilogram

ug/L - Micrograms per Liter

USCS - Unified Soil Classification System

USEPA - United States Environmental Protection Agency

UST - Underground Storage Tank
VOC - Volatile Organic Compound

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#### 1.0 INTRODUCTION

A limited Phase II Environmental Site Assessment (ESA) was conducted by Parsons Engineering Science (Parsons ES) on February 20-27, 1996 and March 7-8, 1996, at the request of Furon Company and O'Melveny and Myers who are outside counsel for Furon Company.

The Phase II investigation plan was developed to focus specifically on the findings and conclusions of a prior Phase I ESA, completed for the site in July and August 1995. As such, the Phase II ESA was designed to develop data relevant to:

- Areas of "recognized environmental conditions,"
- Other conditions of environmental concern, and
- "Baseline environmental conditions" at the site.

The objective of the Phase II investigation was to identify, to the extent feasible through limited sampling and analysis, whether any evidence of contamination existed due to historic site operations. The investigation process would also yield a limited data set that could be used by Furon Company to define "baseline environmental conditions" at the time of their initial occupancy and ownership of the property.

The Phase II ESA was conducted by Parsons ES in accordance with Title 6 of the New York State Compilation of Rules and Regulations, 6 NYCRR Part 360, April 1995, except as otherwise specified. The Phase II ESA was begun on February 21, 1996 and reported on May 2, 1996.

#### 1.1 FINDINGS OF THE PHASE I ESA

Parsons ES performed a Phase I ESA at the Liberty Street facility between July 24 and July 27, 1995, for Furon Company. The results of the Phase I ESA were presented to Furon Company in a Final Phase I Environmental Site Assessment Report on April 9, 1996. The Phase I ESA identified three "recognized environmental conditions," as defined in American Society of Testing and Materials (ASTM) Standard Practice E 1527-94 and eight additional conditions of environmental concern. Each condition is described briefly and the rationale presented for inclusion or exclusion from the Phase II ESA.

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#### The "recognized environmental conditions" are:

- 1. Potential asbestos containing floor tiles,
- 2. Potential fuel oil releases from former on-site underground storage tanks (UST), which may have been present on-site for up to forty-seven years, and
- 3. Potential releases related to the use of solvents in manufacturing processes.

#### The conditions of environmental concern are:

- 1. Potential process leach fields,
- 2. Fluorescent Light-ballast,
- 3. Hazardous Waste Storage,
- 4. Waste Water Collection and Discharge System,
- 5. Exterior Drainage Systems,
- 6. Catalytic Oxidizer Odor Issue,
- 7. Condensate Spill Event, and
- 8. Housekeeping Issues.

These conditions, with the exceptions of the suspected asbestos containing floor tiles, the fluorescent light ballasts, and the catalytic oxidizer odor issue, present a past or present potential for releases of petroleum products and hazardous materials to the soil and groundwater of the Liberty Street facility.

The suspected asbestos containing building material (ACBM) identified during the Phase I visual inspection is limited to floor tiles (9" x 9"). These tiles were not sampled for confirmation of asbestos content. Although worn, the observed tiles were found to be in a nonfriable condition. If the tiles become broken and in a friable condition, they may present a health hazard to occupants of the building. Ultimately, these tiles will require removal, remediation, and disposal in accordance with applicable Federal and State regulations. Additional investigations under this Phase II ESA were not performed.

AlliedSignal Fluorglas and New York State Department of Environmental Conservation (NYSDEC) records indicate the presence of three underground storage tanks (USTs) at the Liberty Street facility since the early 1970's. Given the presence of a boiler room in the original section of the building, it is plausible that USTs were present on-site since 1948.

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The Phase I ESA noted the presence of an underground storage tank that had been taken out of service in the Spring of 1995. Additionally, two other USTs were identified and were reported by Allied Signal Fluorglas to have been closed. All three of these tanks were still buried when the Phase I was completed.

The UST which had been taken out of service was removed in August of 1995, subsequent to the performance of the Phase I ESA for the site. AlliedSignal Fluorglas contracted Clean Harbors Environmental Services to remove the 8,000 gallon #4 oil tank in accordance with New York State Department of Environmental Conservation (NYSDEC) guidance.

During this operation, visual staining by fuel oil contamination was noted around the fill pipe. This soil was excavated, drummed, and disposed of off-site. The excavated hole at the UST location evidenced no visual staining of the soil. Screening of the excavation by photoionization detector failed to detect volatile organic compounds. Two soil samples, one collected from the side walls of the excavation and one collected from the bottom of the excavation underneath the tank, were analyzed by EPA Method 8260 for volatile organic compounds and EPA Method 8270 for semi-volatile organic compounds. No contamination was detected in these samples. The excavation was then backfilled with material from within the court area.

Based on discussions with facility personnel during the Phase I ESA investigations, it was unclear that the two other USTs, although "closed," had not been excavated and removed. This remains a minor source of confusion. In a memorandum from AlliedSignal dated September 21, 1995, in which the draft Phase I ESAs were reviewed, AlliedSignal stated that "...The two "former" USTs were removed in 1992 and 1988. Closure information and sampling results will be provided [to Furon] in an Addendum to the Disclosure Document."

Nonetheless, these tanks present the potential for past fuel oil releases. Copies of the UST closure reports documenting the removal and disposal of the USTs and including the analytical results of sampled soils were provided to Furon Company by AlliedSignal Fluorglas. This ESA was formulated with the expectation that the UST closure reports were comprehensive and did not identify petroleum hydrocarbon contamination attributable to the removed USTs.

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Short term, less than 90 day, hazardous waste storage is conducted within a designated area within the Liberty Street facility. During the Phase I ESA, an inspection of this area revealed it to have slab on grade concrete floor, however secondary containment was notably absent.

The use of solvents in both past and current manufacturing processes present the potential for releases. This potential is heightened by the presence of perimeter floor drains within the building and the suggestion of former process water drain fields. Groundwater sampling and analysis was performed as part of this Phase II ESA to characterize groundwater quality and possibly identify solvents present at the Liberty Street facility.

The historic presence of one or more process leach fields was suggested by an individual formerly associated with the Laminants Division manufacturing at the Liberty Street facility in the 1970s. Three potential areas are described as follows:

A pit or swale located near the southeast corner of the building reportedly received metallic liquid wastes from the laboratory etcher unit. The discharge into this pit may be substantiated by facility personnel who recall a copper hydroxide release and subsequent cleanup in this area. The date and precise location of this release are not known. Furon Company has requested additional information concerning this event and documentation of any cleanup effort from AlliedSignal Fluorglas.

Two leach fields, one on the southwest corner of the building and the other in proximity to the northwest corner of the building were also suspected. The former, described as a former leach field that potentially received metallic waste from the plant, may correspond to a concrete sump found exterior to the Pressure Sensitive Adhesive Tape (PSAT) coating room. This sump has a pipe, currently blocked off, that appears to run from a perimeter floor drain within the PSAT coating room. The latter suspected leach field is in the area of, and exterior to, the "Can" extrusion process mixing rooms.

Fluorescent lighting within the Liberty Street building was noted in the Phase I report as a potential source of Polychlorinated Biphenyls (PCBs). Although this potential still exists, no visible evidence of leakage from the light ballasts was noted.

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The wastewater collection system within the Liberty Street building is at best ill-defined. Process and domestic wastewater is combined and discharged into the community sewer system, which ultimately is treated at the Hoosick Falls Publicly Owned Treatment Works (POTW) and then discharged into the Hoosick River. The Phase II ESA did not characterize waste streams within the facility or sample wastewater discharges. This work was considered to be beyond the scope of this investigation and would require a detailed analysis of plant process and waste streams in order to develop an appropriate sampling program.

During the Phase I ESA, four drain pipes were identified discharging to the field west of the Liberty Street facility. A fifth drain pipe was discovered during the Phase II ESA. These drain pipes appear to be associated with stormwater collection systems and/or underdrains associated with the building. During the Phase II ESA, three of the five drain pipes were discharging liquid. The sources and areas drained by these pipes are not defined. In one instance, however, discharge was traced from the boiler room sump to a stormwater catchbasin and ultimate discharge via the drain pipes to the ground surface.

A sump located in the "old" boiler room receives discharge from several drain pipes emanating from the front office and laboratory area of the building. During the Phase I ESA, oil stains and a waste oil drum were also observed in proximity to the sump. The integrity of the sump was not assessed. Additionally, during the Phase II ESA it was learned that a sump located in the courtyard area, in proximity to the boiler room, receives the overflow discharge from the boiler room sump.

Air emissions from the "Can" extrusion process area resulted in condensate occurring along the north wall of the facility, immediately east of the catalytic oxidizer unit, and runoff to the ground surface. One release event was reported to the local fire department and NYSDEC; however, discussions with facility personnel suggest the condensate was an ongoing process event. AlliedSignal Fluorglas has indicated the condensate is primarily comprised of kerosene.

The NYSDEC issued a draft Consent Order to the Liberty Street facility concerning odor complaints made by neighbors to the facility. The odors are attributed to the catalytic oxidizer unit and corrective measures have been implemented and are currently under evaluation by Furon Company. This issue was outside the scope of the Phase II ESA.

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Housekeeping issues related to the PSAT coating process and condensate were identified. Control of low volume drips is best accomplished with sorbent pans, such as currently used in portions of this process area. This issue was outside of the scope of the Phase II ESA.

#### 1.2 SCOPE OF WORK

The scope of the Phase II investigation was designed to:

- Address the "recognized environmental conditions" associated with the former USTs and solvent use and disposal from the manufacturing processes,
- Evaluate six other conditions of environmental concern, and
- Establish the "baseline environmental conditions" for the property.

The scope of the Phase II investigations was as follows:

- The installation of six (6) soil borings/monitoring wells to determine baseline soil and groundwater quality at the Liberty Street property. Two (2) monitoring wells were located in the undeveloped property west of the manufacturing building. The remaining four (4) monitoring wells were located in close proximity of the building.
- Development of the six (6) monitoring wells followed by the collection of six (6) groundwater samples to be analyzed for volatile organics, semivolatile organics and metals. One of the monitoring wells, MW-2L, was also analyzed for Total Petroleum Hydrocarbons (TPH).
- The collection of one (1) surface soil sample from the gravel driveway for TPH and Polychlorinated Biphenyls (PCBs) analysis to determine potential impacts from the historic spreading of oils on the gravel driveways for dust suppression.
- The collection of two (2) near-surface soil samples from the exterior of a sump/drywell located exterior to the PSAT coating process room. These samples were analyzed for volatile organics, semivolatile organics, and metals.

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- The collection of one (1) near-surface soil sample from the area of a suspected copper hydroxide solution release, in the vicinity of the southeast corner of the building. The sample was analyzed for volatile organics, semivolatile organics, metals, and TPH.
- The collection of two (2) near surface soil samples targeting the "can" extrusion process condensate release in the vicinity of the catalytic oxidizer. These samples were analyzed for volatile organics, semivolatile organics, metals, and TPH.
- The collection of one (1) soil sample exterior of the northwest corner of the building in the vicinity of a possible historic process discharge area. This sample was analyzed for volatile organics, semivolatile organics, metals, and TPH.
- The collection of one (1) soil sample near the exterior northwest corner of the building, in an area of stressed vegetation. This sample was analyzed for volatile organics, semivolatile organics, and metals.
- The collection of five (5) sediment samples, one (1) sample from below each drain pipe outfall. Samples were taken from the drainage channel bed immediately below the outfalls and analyzed for volatile organics, semivolatile organics, metals, TPH, and PCBs.
- The collection of two (2) soil samples adjacent to the sump located in the courtyard, in proximity to the boiler room. These samples were analyzed for volatile organics, semivolatile organics, metals, and TPH.
- The collection of one (1) soil sample in proximity to the boiler room sump.

#### 1.3 SUMMARY OF THE PHASE II FINDINGS

The soil results from the Phase II ESA indicate that four volatile organic compounds, four polynuclear aromatic hydrocarbons, TPHs, and four metals were present in surface/near surface soils at concentrations above their respective NYSDEC recommended soil cleanup objective concentrations. Five metals and TPHs were detected in the sediment samples.

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Five metal compounds, aluminum, antimony, cobalt, iron and magnesium, were detected in the groundwater at concentrations which exceeded the Federal Maximum Contaminant Level (MCL) or New York State Groundwater Quality Standards. The Federal MCL is the maximum permissible level of a contaminant in water which is delivered to any user of a public water system. The New York State Groundwater Quality Standards are the maximum levels of a contaminant in fresh groundwater. The monitoring wells sampled were installed in clay soils. The exceedances for aluminum, iron, and magnesium are considered to be reflective of the natural variability of the clay soils. The exceedances may also be attributed to the elevated turbidity levels encountered during the sampling event. The metal concentrations encountered in the groundwater at the Liberty Street facility are not believed to be indicative of environmental site problems.

#### 2.0 SITE DESCRIPTION

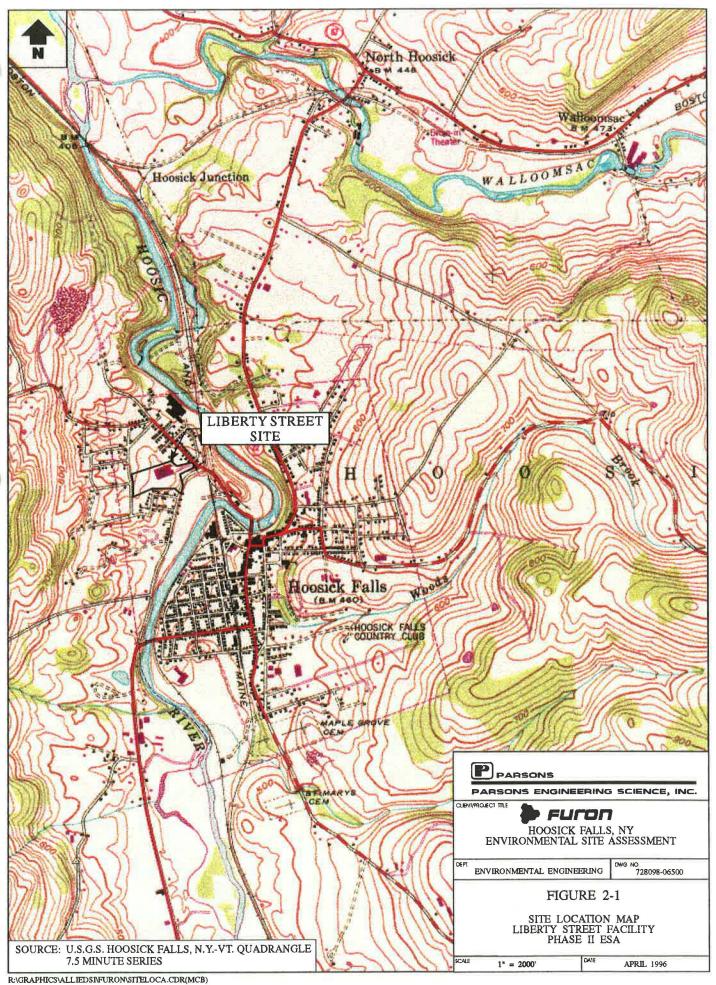
#### 2.1 LOCATION AND DESCRIPTION OF PROPERTY

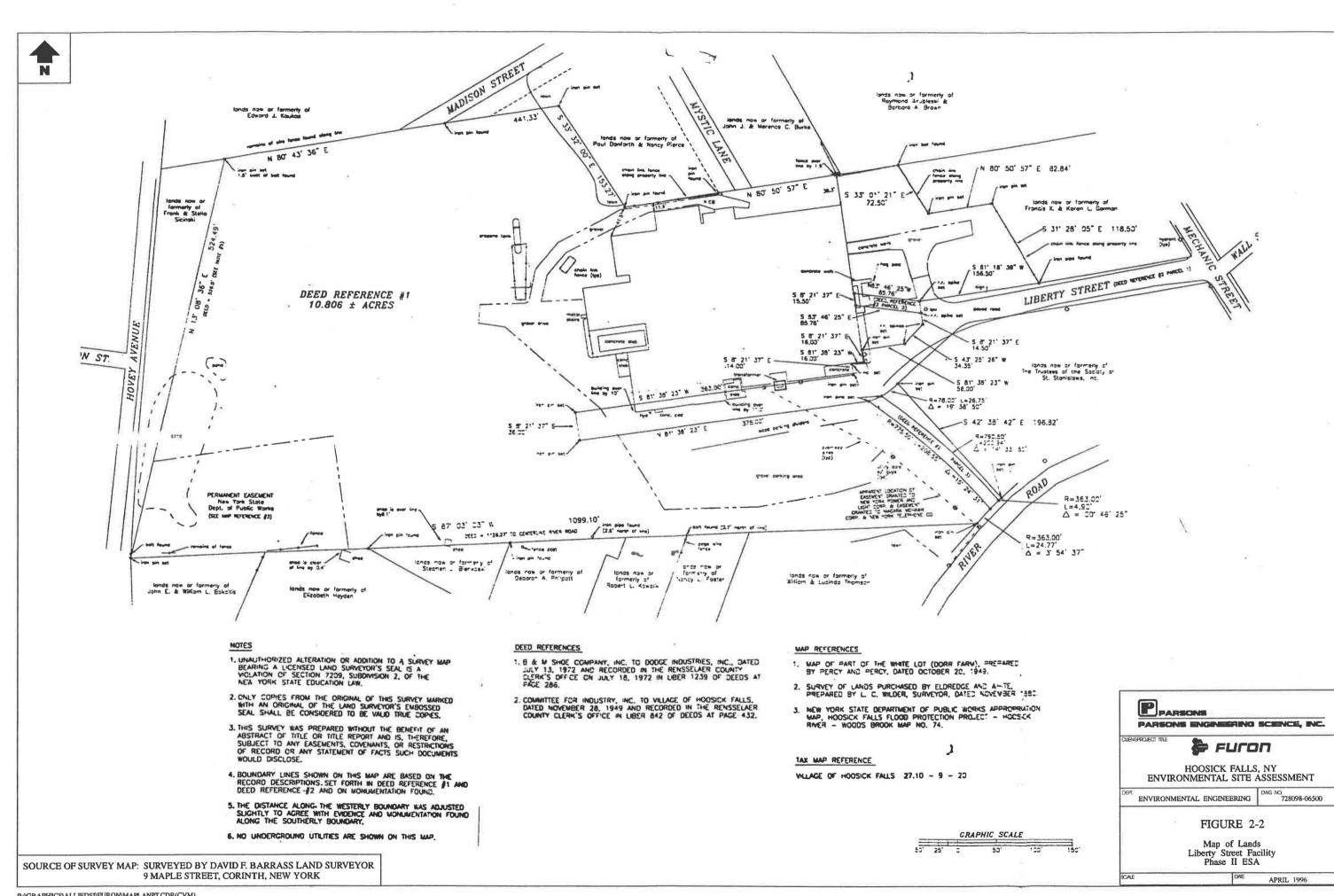
The Furon Company Liberty Street facility is located in Rensselaer County in the Village of Hoosick Falls, New York. Figure 2-1 presents a site location map compiled from the United States Geological Service (USGS) 7.5 minute, Hoosick Falls Quadrant, revised in 1984. The site is an irregularly shaped 10.8 acre lot situated within the northwest quadrant of the Village of Hoosick Falls, New York. Figure 2-2 present the Map of Lands of the Liberty Street facility. The subject property is located on an erosion ridge [approximate elevation 485 ft. above mean sea level (msl)] that extends northeast and down-gradient from Clay Hill (approximate elevation 900 ft. above msl). The ground surface topography of the property is relatively flat, with the surrounding land surface sloping away to the north, east, south, and west in the general direction of the Hoosick River.

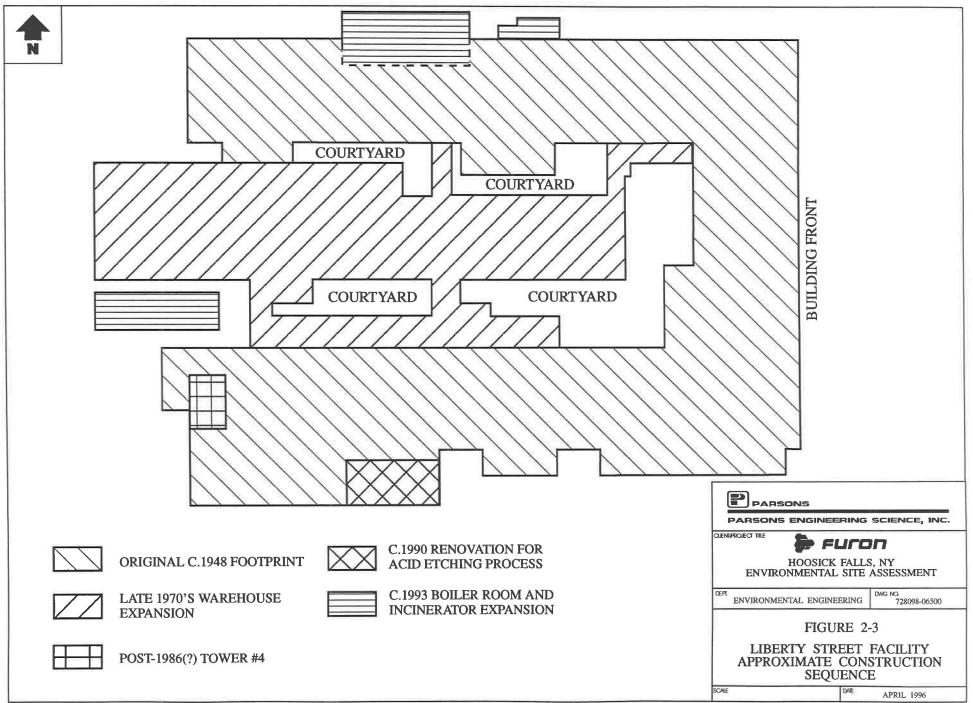
The Liberty Street building footprint, situated in the eastern half of the lot, is rectangular with the long axis running east to west (Figure 2-2). The structure encompasses 55,200 square feet of office, production, and warehouse interior space. The current building is a composite of a core U-shaped industrial structure built around 1948 and later structural expansions, additions, and renovations. Following construction in circa (c.) 1948, major expansion of the facilities occurred in the 1970s and early 1990s. Figure 2-3 presents the facility footprint and general areas and dates of structural expansion as best reconstructed from structural details and interviews of facility personnel.

The original structure is a 1 1/2 story concrete block, slab-on-grade, and wooden arch-truss roof construction. The roof appears to be a built-up fibre composition coated with a metallic "silvered" roof sealer. The concrete block exterior walls at the southwest end of the 1948 structure were enclosed by vertical metal siding, possibly in the late 1970s or early 1980s. The 1970s warehouse expansion(s) consisted of wood "pole-barn" post and truss construction covered by corrugated sheet metal. Floors are concrete slab-on-grade and the roof is a corrugated sheet metal. Post 1986 construction, such as the boiler room expansion along the northern wall, and the raised roof over the barrel storage area along the south wall,

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is slab-on-grade, concrete footings and a lapped sheet metal over 2" x 4" wood or metal frame wall. The roof is a similar lapped sheet metal construction.

With the exception of a three-story tower surrounding the vertical pressure sensitive adhesive tape (PSAT) dip coater (also referred to as tower #4) at the southwest corner of the plant, the facility operations are on one floor level. The front office and laboratory areas have a suspended ceiling height of about 10 feet. The arch truss roof over the production areas provides a ceiling height ranging up to approximately 20 feet at its apex. Similarly, the central warehouse areas have ceiling heights ranging between approximately 14 and 20 feet.

Perimeter floor drains were observed in the new boiler room and one of the mixing rooms in the northwest area of the building (extruded tape area) and in the PSAT coating room. Floor drains were not observed in the balance of the facility. The facility manager informed us that the perimeter drains are currently blind drains, with no discharge pipes. During the visual inspection, an operator was observed draining fluids from one of the PSAT coating units to a metal basin placed in the perimeter drain. When filled, this basin was manually lifted out of the drain and the liquid contents poured into a five gallon waste container. AlliedSignal Fluorglas personnel informed us that accumulated liquids were also pumped from these drains to one of two collection sumps, from which the liquids are pumped into the Village of Hoosick Falls POTW sanitary sewer system. One sump is located in the center of Warehouse #1 and the other sump is located in a mixing room west of the can-press area. The historical floor drain system was apparently dissimilar to the present system, for two dry sumps were found exterior (west) of the manufacturing building with discharge pipes (currently plugged) running from the building to the sumps. The southernmost sump is just outside of a room with a perimeter drain system, suggesting the past potential for floor drain release to these sumps.

The Facility Manager responsible for the Oak Atlantic Laminates manufacturing facility located in the Liberty Street building in the 1970's and 1980's, recollected the presence of process drain fields northwest and southwest of the buildings. No evidence of these drain fields was noted by the visual reconnaissance. Furthermore, the current Furon Company personnel questioned did not have knowledge of these process drain fields.

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Electrical power to the building is provided by the commercial entity Niagara Mohawk. Above ground power lines follow an easement heading northwest from River Road to a 1,000 KiloVolt-ampere (KVA) pad mounted transformer adjacent to the Liberty Street building. The transformer is the property of Niagara Mohawk. Water and sanitary sewer services are provided by the Village of Hoosick Falls POTW.

#### 2.2 SITE AND VICINITY CHARACTERISTICS

The Liberty Street property is northwest and across the Hoosic River from the center of the Village of Hoosick Falls. The lot is surrounded by a patchwork of undeveloped lands and residential areas. To the north, contiguous to the Liberty Street property and within 150 feet of the plant building, are three residences fronting Madison Street and Mystic Lane. North of Madison Street, and centered along Mechanic Street is a residential area composed of an estimated thirty houses. Within 300 feet of the plant and to the south is a residential area of more than ten homes. Residential and isolated commercial properties are east of the property. The Society of St. Stanislaws owns and operates a society hall at the corner of Mechanic and Liberty Streets. Within one half a mile to the southeast and northeast are industrial manufacturing facilities, historically the location of the W.A.Wood Mowing and Reeping Machine Company. The 1 Mechanic Street complex is currently an AlliedSignal Laminate Systems manufacturing facility. The Lydall CMD Division manufacturing facility is located on Davis Street. A power substation is located south/southeast of the subject property, near the Hoosick River. Residential land use was observed to the west on Hovey Avenue and Hampton Street.

Surface water drainage at the facility is believed to be controlled by the site topography. The facility is situated on a relatively flat ground surface. The surrounding land surface slopes away to the north, east, south, and west. Surface water drainage at the facility may also be controlled by stormwater collection systems (i.e., any of the five drain pipes which discharge to the field west of the facility). In the westernmost portion of the site a wet and poorly drained area was observed. Phragmities, a common wetland plant, was also observed in this area.

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#### 2.3 PHYSICAL SETTING

#### 2.3.1 Regional Geologic Setting

Hoosick Falls lies in the New England Upland (Taconic Range) physiographic province. Bedrock outcrops are found at the surface throughout the New England Upland area. The bedding planes of the bedrock are often inclined, and other distortions from the horizontal are evident. These are the result of thrust and folding pressures exerted from the east as a landmass (actually an arc of volcanic islands) moved gradually westward during the Middle Ordovician Taconic mountain-building episode. This westward movement stacked and displaced large deposits of clay, sand, gravel and carbonates, which had accumulated on the floor of a deep ancient sea, moving them westward along faults as slices of rock, that became intermixed and stratigraphically disordered. As a result, the older rock graywacke, that forms the cap of the Rensselaer Plateau became perched on top of younger rock. Localized exposures of limestone and dolomite, found in association with thrust faults here and there in the area, were dragged westward as blocks of carbonate-rich rock. Shales in the area were altered (metamorphosis) into phyllites and slates during this period of mountain building.

Galcial sediment deposits overlay the bedrock surface, resulting in deposits of sands, gravels, clays, and glacial till.

Most of Hoosick Falls lies along the Hoosic River flood plain. The area is relatively flat with some hills, except along the eastern town boundary where the topography slopes moderately to the west, towards the Hoosic River. The average elevation of Hoosick Falls is approximately 500 feet above sea level.

## 2.3.2 Site Geologic Setting

Six soil borings were advanced during the Phase II ESA at the Liberty Street facility to total depths ranging from 14.5 feet to 32 feet below ground surface. During the advancement of these soil borings, the two geologic materials observed were artificial fill and clay. The Overburden Boring Reports are presented in Appendix A.

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The fill material was observed at all soil borings except boring MW-5L. At soil boring locations MW-1L, MW-2L, MW-4L, and MW-6L, the fill material was observed to be up to 3.5 feet thick. At soil boring MW-3L, the fill material was observed to approximately 6 feet thick. The fill material generally consists for olive-brown silt and clay, with trace amounts of fine to medium sized gravel.

A clay unit was observed stratigraphically below the fill material, except at MW-5L where the clay was encountered below topsoil, 0.5 feet below ground surface. The clay unit generally consists of light brown-gray clay, with very thin lenses of silt (laminated), wet, and plastic.

#### 2.3.3 <u>Site Hydrogeologic Setting</u>

The distribution of groundwater in the aquifer underlying the Liberty Street facility was characterized by wet to saturated clay. The depth to groundwater as observed during the advancement of the soil borings was estimated as follows:

Location	Depth (feet below grade)
MW-1L	12-15 feet
MW-2L	7-10 feet
MW-3L	12-15 feet
MW-4L	7-10 feet
MW-5L	6.3 feet
MW-6L	5.0 feet

Table 2-1 presents the Monitoring Well Water Level Summary at the Liberty Street facility. Figure 2-4 presents the Groundwater Elevations and Flow Directions. Relative elevations in the five monitoring wells were obtained with a level and a graduated surveying rod, after establishing an arbitrary datum. The arbitrary datum control point was located in the southern section of the site, adjacent to the transformer. The groundwater flow direction was determined to be radially towards the southeast, south, and west based on the relative groundwater elevations measured in the six monitoring wells on February 26-27, 1996, and March 7, 1996. The radial flow is due to the high relative water level measurement in MW-2L. Recharge to the monitoring wells during well development and sampling was poor

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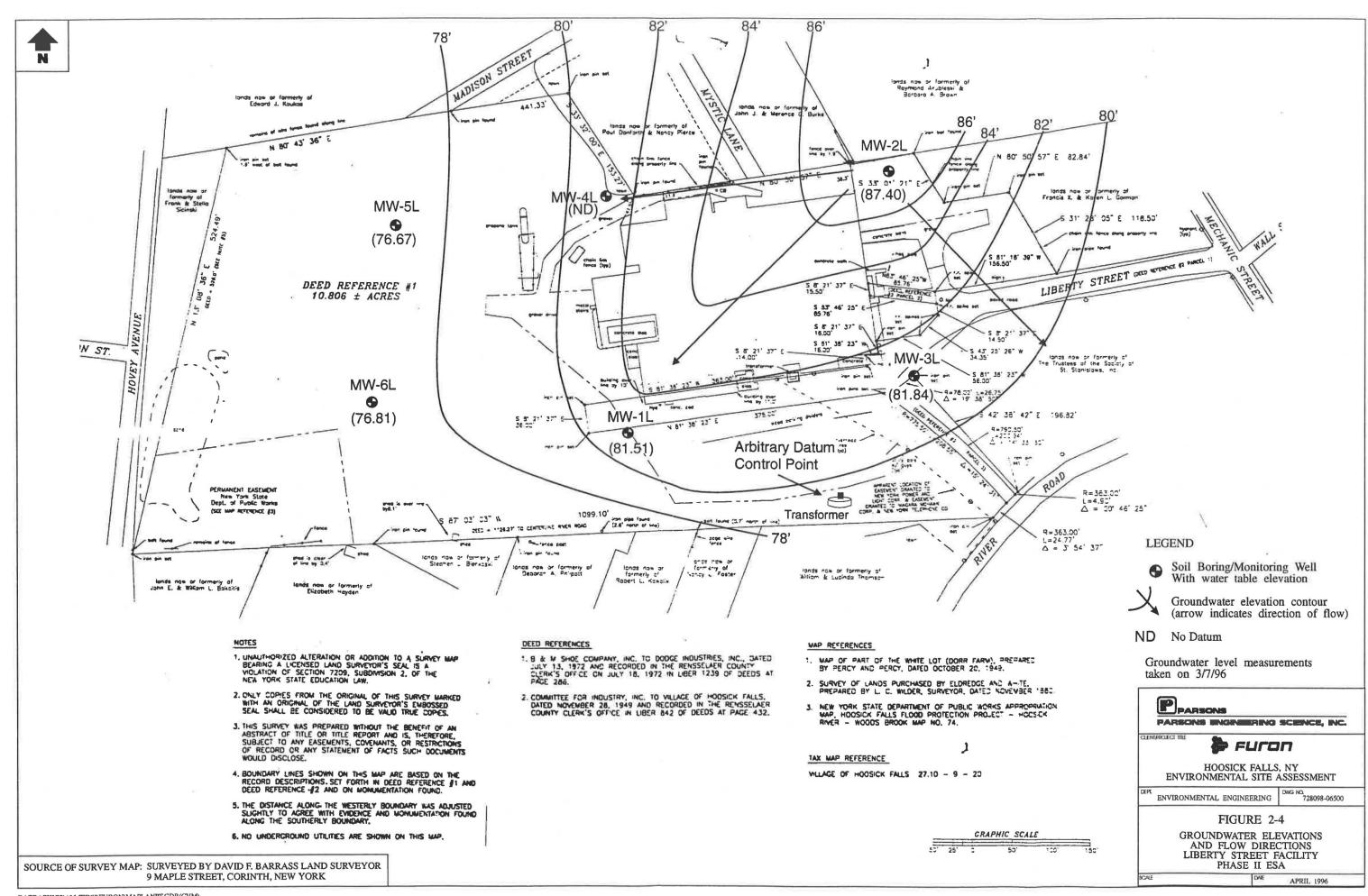
TABLE 2-1

## FURON COMPANY PHASE II ESA LIBERTY STREET MONITORING WELL WATER LEVEL SUMMARY

Location	Top of PVC Casing Elevation (feet) <sup>1</sup>	Date of Water Level Measurement	Depth to Groundwater (feet) <sup>2</sup>	Groundwater Elevation (feet) <sup>1</sup>
MW-1L	103.40	2/26/96 2/27/96 3/7/96	20.48 21.12 21.53	82.56 81.92 81.51
MW-2L	98.05	2/26/96 2/27/96 3/7/96	11.64 11.40 10.65	86.41 86.65 87.40
MW-3L	99.57	2/26/96 2/27/96 3/7/96	19.51 20.88 17.33	80.06 78.69 81.84
MW-4L	101.0	2/26/96 2/27/96 3/7/96	Dry Well Dry Well Dry Well	Dry Well Dry Well Dry Well
MW-5L	83.77	2/26/96 2/27/96 3/7/96	12.82 12.68 7.10	70.95 71.09 76.67
MW-6L	83.97	2/26/96 2/27/96 3/7/96	12.64 12.19 7.16	71.33 71.78 76.81

# Notes:

- (1) All elevations are based upon an assumed elevation of 100 feet set for the arbitrary reference point located adjacent to the transformer.
- (2) Distance to groundwater referenced to top of well casing.



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(recharge rate of less than 0.2 gallons per hour) at MW-1L and MW-3L, and poor to fair (recharge rate of approximately 0.4 gallons per hour) at MW-2L, MW-5L and MW-6L. Monitoring well MW-4L did not contain water.

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#### 3.0 <u>SITE HISTORY</u>

#### 3.1 PAST SITE USE

In 1948, the Committee for Industry, Inc., a local economic development organization, built the Liberty Street industrial building to entice new manufacturing companies to Hoosick Falls. Historical documents suggest that prior to construction of this building, the subject property was undeveloped. The Rensselaer County Book of Deeds indicates the area was divided into several small farm lots as early as 1806, although nineteenth century land use appears to not have included the construction of any substantial buildings here. An 1860 Map of Hoosick Falls indicates three residential structures near the present-day intersection of Mechanic and Madison Streets, yet no buildings within the bounds of the subject property. The area remained undeveloped woodlands or pasture. In 1868 the Walter A. Wood Mowing and Reeping Machine Co. obtained title to portions of the property. The W.A. Wood Company was the primary manufacturer and employer in Hoosick Falls in the late nineteenth century with an extensive industrial complex located east of Mechanic Street along the Hoosic River. However, the historical records suggest the Liberty Street property was not developed by the W.A. Wood Company for industrial purposes.

The Liberty Street industrial building was occupied by the Nancy Shoe Company in the late 1940s or early 1950s. Manufacturing entailed the assembly of shoes. Apparently no leather curing or tanning processes were located on site. Shoe assembly continued here through the late 1960s. The B&M Shoe Company is listed as the property title holder in 1968.

The Dodge Industries Division of Oak Materials Group purchased the Liberty Street building in 1972. The building was used to house various Teflon® product processes here through the present. Ownership of this property changed from Oak Materials Group to AlliedSignal in 1986.

Prior to the acquisition of the property by AlliedSignal, a laminate process was located in the southern half of Liberty Street facility. This was apparently removed in the late 1980s, to be replaced by the PSAT process.

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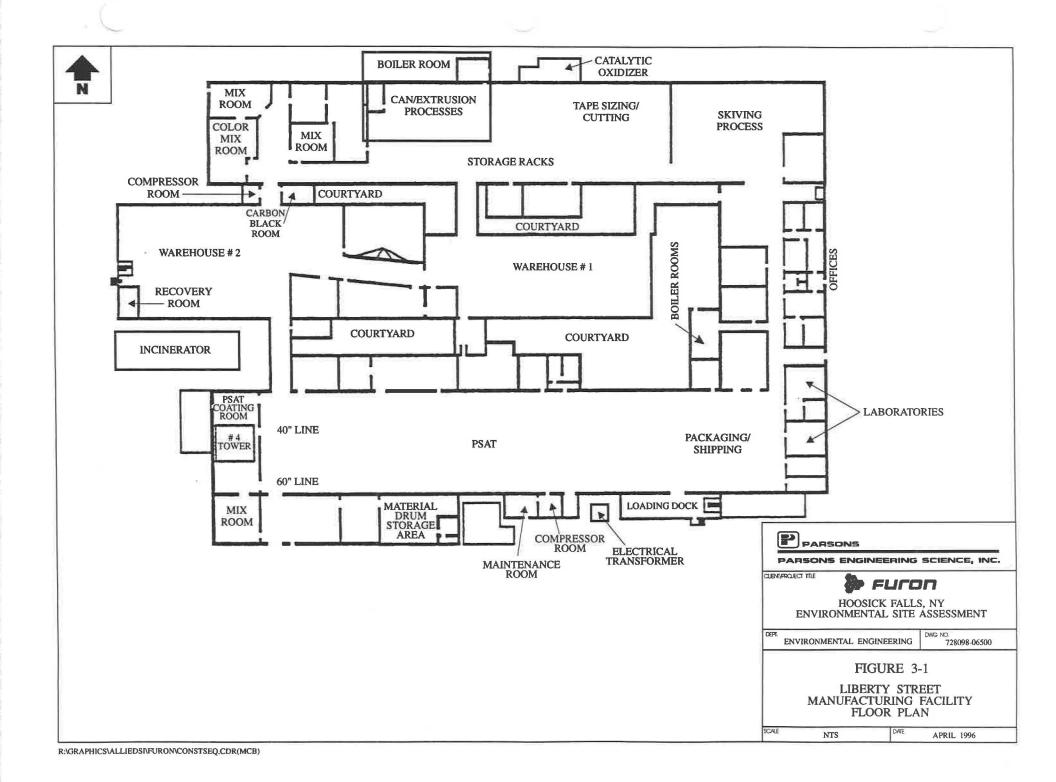
Furon Company purchased the Liberty Street facility from AlliedSignal, Inc. Fluorglas Products in February 1996.

#### 3.2 CURRENT SITE USE

The Liberty Street Building is currently used by Furon Company for the production of a variety of Polytetrafluoroethylene (PTFE) film products and PSAT products on three process lines; skiving, extrusion, and Pressure Sensitive Adhesive Tape (Standard Industrial Classification codes 2295, 3089). Manufacturing operations are run 24 hours per day, seven days per week, with up to 80 total employees.

Figure 3-1 provides a floorplan of the facility with general functional areas identified. The main entrance and facility offices are located at the east end of the building. Immediately west of this office area are the boiler rooms for heating. A laboratory for physical and chemical materials testing is located in two rooms in the southeast corner of the building. The large open space in the southeast corner of the building is used for preparation and shipping of finish products. The loading dock is immediately adjacent to this work area. The PSAT manufacturing process occupies most of the southwestern portion of the facility, and includes mixing rooms, the coating room, the #4 tower, and the two horizontal line driers. Drummed materials used in the manufacturing processes are stored in the drum storage area along the south wall. In an adjacent room, hazardous materials contained in drums are temporarily stored (less than 90 day holding time according to facility personnel) until removed for off site disposal. The skiving process is contained in the northeast corner of the building. Adjoining work areas proceeding west include tape cutting/sizing, tape packaging, and storage racks. A temperature controlled area is the location of can presses and extrusion processes. Recent improvements in this area include the boiler room and the catalytic oxidizer incinerator. Mix rooms associated with the extrusion process are located in the northwest corner of the building. Warehousing of dry materials, with one noted exception, was found in the central area of the building. In the northwest corner of warehouse #2, drums containing liquid solvents were observed.

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#### 4.0 FIELD INVESTIGATION METHODOLOGY

#### 4.1 SOIL BORINGS

The objective of the soil boring program was to identify, through limited sampling and analysis, the possible presence of contamination in subsurface soils.

The soil borings were completed in accordance with the work plan. The only deviation in the soil boring program from that described in the work plan is discussed below.

The first two soil borings advanced at the Liberty Street facility were MW-2L and MW-4L. Clay was observed in both borings at approximately two feet below ground surface to approximately 32 feet, where drilling was terminated. In both borings, the clay was wet to saturated between 7 and 10 feet below ground surface. Generally, it is not a common practice to install a monitoring well in a clay unit. Therefore, the borings were advanced to 32 feet in search of a more permeable lithology. Since one was not encountered, and because the water table was observed to be between 7 and 10 feet below ground surface, the borings were backfilled to approximately 14 feet below ground surface. Afterwards, filter sand was placed at the bottom of the boring and a monitoring well was installed. Figure 4-1 presents the Sample Location Map. The Overburden Boring Reports are presented in Appendix A. Maxim Technologies Inc. of Ballston Spa, New York performed the drilling under the direction of Parsons ES personnel.

Photographs of all soil boring/monitoring well locations are presented in Appendix B.

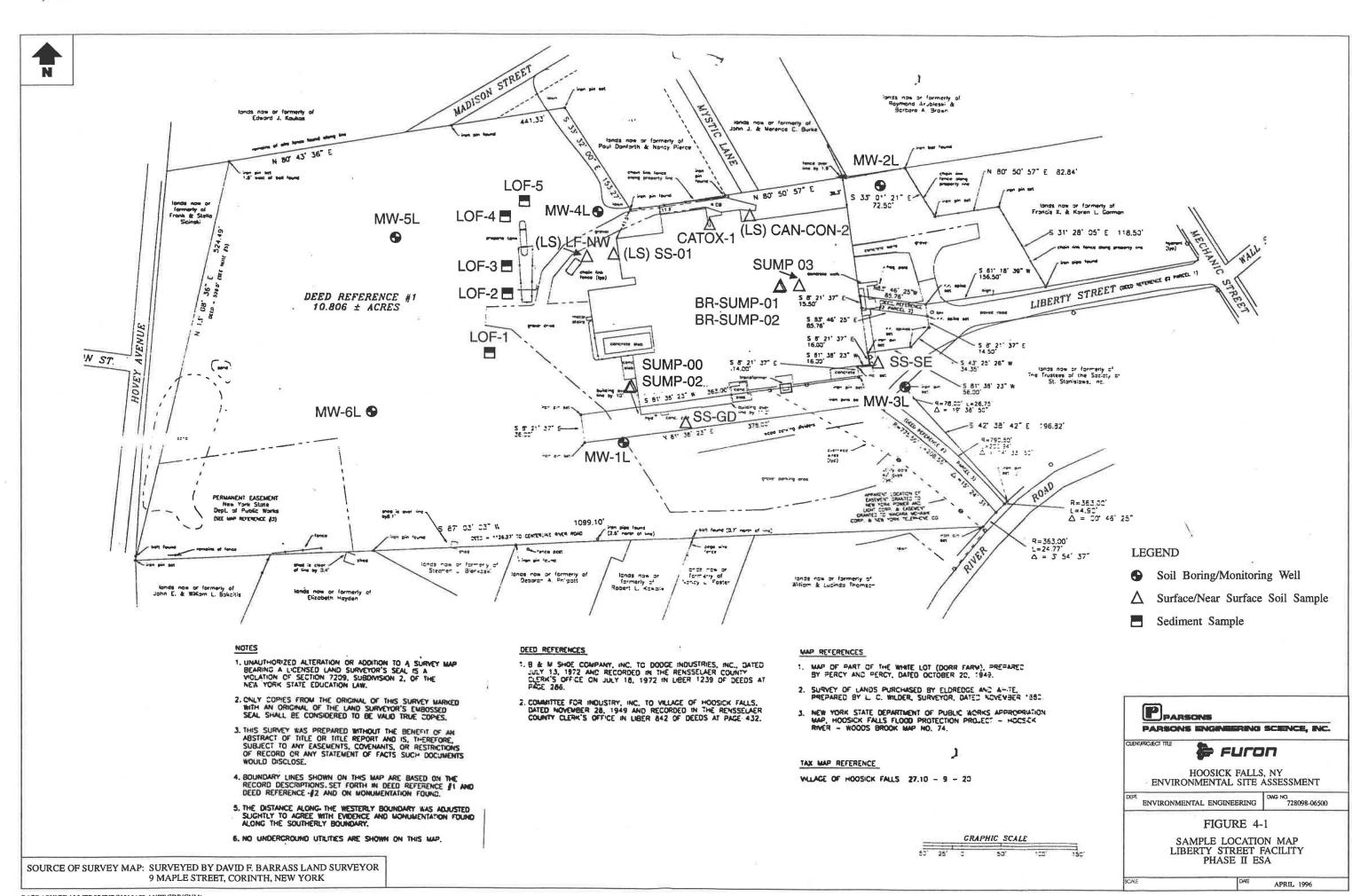
#### 4.1.1 Sampling Methods

A total of eight soil borings were advanced using an ATV 850 track mounted rig or an Acker Soil Max drilling rig, equipped with 4.25-inch inside diameter (I.D.) hollow stem augers. During drilling, soil samples were collected at the surface (0-2 feet below grade) and at 5 foot intervals or at a stratigraphic change to the total depth of the boring. The soil samples were collected using a decontaminated 2-inch by 2-foot long carbon steel split spoon sampler. The split spoon was driven into undisturbed soil with a rig-mounted 140 lb hammer. Once the

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sample was collected, the augers were advanced to the top of the next sample interval. Samples were collected to the total depth of the boring.

Once the split spoon was driven and removed from the soil boring, the split spoon was opened and immediately screened for volatile organics compounds (VOCs) using an Organic Vapor Meter (OVM) 580B. No elevated OVM readings were observed during the drilling program.

Soil samples were classified according to the Unified Soil Classification System (USCS).

In addition to screening the split spoon sample, a soil sample was then collected and placed into a 16 ounce mason jar for headspace screening. Sufficient sample was placed in the mason jar to fill it half full. The mason jar was then sealed with aluminum foil and placed in a vehicle for approximately 20 minutes, allowing the temperature of the sample to equilibrate. Afterwards, a small hole (1/4-inch) was made in the aluminum foil and a headspace reading was taken with the OVM. No elevated OVM readings were observed during the headspace screenings.

Since no elevated OVM readings were observed during the screening process, the soil boring samples selected for chemical analysis were collected at or just above the water table, or where there was a sufficient change in the lithology as per the workplan. Table 4-1 presents the Soil Sampling Summary. Samples to be analyzed for VOCs were collected first. The remaining soil from the split spoon was then mixed in a decontaminated stainless steel bowl with a decontaminated stainless steel utensil, and placed in the appropriate sample containers. The eight soil borings were analyzed for Target Compound List (TCL) volatiles, semivolatiles, and Target Analyte List (TAL) metals. Four of the eight soil boring samples were also analyzed for Total Petroleum Hydrocarbons. In addition, a thin wall Shelby tube was collected at soil boring MW-6L. The Shelby tube was tested for permeability by Triaxial cell with back pressure. The results indicate that the clay encountered at the soil boring MW-6L has an average hydraulic conductivity (K) of 8.710E-08 cm/sec. According to Groundwater (R.A. Freeze and J.A. Cherry, 1979) the hydraulic conductivity of clays range from 1E-07 cm/sec to 1E-09 cm/sec. The clay unit observed at soil boring MW-6L was characteristic of the clay encountered in the other soil borings advanced at the facility. The permeability results are presented in Appendix C. Table 4-1 includes the analytical parameters for all soil samples collected.

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# TABLE 4-1

## FURON COMPANY PHASE II ESA LIBERTY STREET SOIL SAMPLING SUMMARY

Sample #	Sampling Method	Sample Depth (ft.)	Sample Location	Justification for Sample Collection	Parameter Suites
SUMP-00	Split Spoon	0-2	Collected adjacent to the west side of the concrete sump/drywell, located exterior to the PSAT coating process room.	Evaluate integrity of the sump/drywell which may have been associated with a perimeter floor drain within the PSAT coating room.	VOCs, SVOCs and Metals
SUMP-02	Split Spoon	2-4	Collected adjacent to the west side of the concrete sump/drywell, located exterior to the PSAT coating process room.	Evaluate integrity of the sump/drywell which may have been associated with a perimeter floor drain within the PSAT coating room.	VOCs, SVOCs and Metals
SS-GD	Split Spoon	0-0.5	Collected in gravel drive near the southwestern corner of the facility, 25 feet south of the building.	Evaluate soil conditions in the gravel drive where oils were historically sprayed for dust suppression. Sample was collected near two entrances to the facility.	TPHs and PCBs
SS-SE	Split Spoon	0.5-1.5	Collected exterior to the southeast corner of the facility.	Evaluate the soils in the area of a suspected copper hydroxide solution release.	VOCs, SVOCs, TPHs and Metals

TABLE 4-1 (CONT.)

Sample #	Sampling Method	Sample Depth (ft.)	Sample Location	Justification for Sample Collection	Parameter Suites
CATOX-1	Hand Auger	1.0-1.5	Collected along the exterior north wall of the facility, between the boiler room and the catalytic oxidizer unit.	Evaluate soil conditions along the exterior north wall of the facility, in the vicinity of the catalytic oxidizer, where the historic "CAN" extrusion process condensate release occurred.	VOCs, SVOCs, TPHs and Metals
(LS)CAN-CON-2	Hand Auger	1-2	Collected along the exterior north wall of the facility, east of the catalytic oxidizer unit.	Evaluate soil conditions along the exterior north wall of the facility, in the vicinity of the catalytic oxidizer, where the historical "CAN" extrusion process condensate release occurred.	VOCs, SVOCs, TPHs and Metals
(LS)LF-NW	Hand Auger	1.0-1.5	Collected in proximity of the northwest corner of the facility.	Evaluate soil conditions in the area of a possible historic process discharge.	VOCs, SVOCs, TPHs and Metals
(LS)SS-01	Hand Auger	1.0-1.5	Collected exterior to the northwest corner of the facility, 2.5 feet from the entrance to the mixing room.	Evaluate soil conditions in an area of stressed vegetation.	VOCs, SVOCs, and Metals

TABLE 4-1 (CONT.)

Sample #	Sampling Method	Sample Depth (ft.)	Sample Location	Justification for Sample Collection	Parameter Suites
BR-SUMP-01	Hand Auger	0.5-1.0	Collected one foot south of the sump in the courtyard, which is located in proximity (north) of the boiler room.	Evaluate integrity of the sump and soils adjacent to the sump which receive a liquid discharge from the condensate return tank and overflow from the "old" boiler room sump.	VOCs, SVOCs, TPHs and Metals
BR-SUMP-02	Hand Auger	2.5-3.0	Collected one foot south of the sump in the courtyard which is located in proximity (north) of the boiler room.	Evaluate integrity of the sump and soils adjacent to the sump which receive a liquid discharge from the condensate return tank and overflow from the "old" boiler room sump.	VOCs, SVOCs, TPHs and Metals
SUMP-03	Hand Auger	3.2-3.7	Collected adjacent to northern exterior wall of "old" boiler room. (Collected in the courtyard).	Evaluate the sediment immediately below the outfall drain pipe.	VOCs, SVOCs, TPHs and Metals
MW-1L-0	Split Spoon	0-1.5	Soil boring MW-1L	Collected to confirm background concentrations.	VOCs, SVOCs, TPHs and Metals

TABLE 4-1 (CONT.)

Sample #	Sampling Method	Sample Depth (ft.)	Sample Location	Justification for Sample Collection	Parameter Suites
MW-1L-15	Split Spoon	15-17	Soil boring MW-1L	Collected at the water table, as per the workplan.	VOCs, SVOCs, TPHs and Metals
MW-2L-05	Split Spoon	5-7	Soil boring MW-2L	Collected at the water table, as per the workplan.	VOCs, SVOCs, TPHs and Metals
MW-3L-10	Split Spoon	10-11.7	Soil boring MW-3L	Collected at the water table, as per the workplan.	VOCs, SVOCs and Metals
MW-4L-05	Split Spoon	5-6.7	Soil boring MW-4L	Collected at the water table, as per the workplan.	VOCs, SVOCs and Metals
MW-5L-02	Split Spoon	0.6-1.6	Soil boring MW-5L	Collected to characterize the topsoil.	VOCs, SVOCs, and Metals
MW-5L-57	Split Spoon	5-6.7	Soil boring MW-5L	Collected at the water table, as per the workplan.	VOCs, SVOCs, and Metals
MW-6L-1	Split Spoon	0.2-1.4	Soil boring MW-6L	Collected to characterize the soils at soil boring location MW-6L. (A Shelby tube sample was collected at the water table).	VOCs, SVOCs, TPH and Metals